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FA-2570  
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S22 INFRARED SYSTEM  
PROGRESS REPORT No. 25

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## I INTRODUCTION

Two model S22 Infrared Scanners have been developed and are to be retrofitted with new analog electronic modules prior to system evaluation. The following report summarizes the monthly progress from 15 May to 15 June 1967.

The only work in process at this time is the production of 100 electronic modules for retrofit. These units were scheduled to be done by 11 June 1967. However, problems experienced in component delivery, poor masks and so on, have caused a production slippage of at least six weeks. In addition, a companion program was given priority on the first production units, such that the S22 modules are now scheduled to be due on 31 August (12 weeks late.) Integration of the new modules into the S22 system is now scheduled for September.

## II PROGRAM STATUS

### A. Technical Conferences

No technical conferences occurred during this period.

### B. System Integration

No work was done in this area.

### C. Development Status

1. Thermoelectric Cooler - The thermoelectric cooler, due on 1 June 1967, has been rescheduled for 23 June. Late delivery of this item is primarily due to clarification of the specification during the procurement cycle. This is not a pacing item.

2. Analog Electronic Modules - The following table shows the present status in the design and production of the required 100 plug-in units.

# ANALOG MICROELECTRONIC STATUS

	<u>PreAmp-Filter</u>	<u>AGC</u>	<u>Threshold</u>
Circuit Design	(c) complete	(c) complete	(c) complete
Package design	(c)	(c)	(c)
Worse Case Analysis	(c)	(c)	(c)
Mask Fabrication	(c)	(c)	(c)
Deposition & Test	55%	21%	28%
Component Delivery	90%	100%	90%
Assembly	44%	11%	23%
Module Status	11 Units		

The problems which have caused a slippage of this effort are as stated in last month's report. Poor quality masks is the most significant problem area. This has caused the deposition yield to drop by more than a factor of four over that previously experienced; thus, deposition work is four times higher and pacing assembly. The mask vendor recently moved to new facilities and has not regained past process control.

A secondary factor having some effect on delivery is that this phase is proceeding on a fixed price basis and so costs, rather than schedules, are being emphasized.

## III PROBLEM AREAS

A delivery slippage of at least 12 weeks now exists as a result of poor masks and yielding to a higher priority companion program. Unsuccessful attempts have been made to obtain better masks and it now appears these will not be attainable for the present production run.